

Work Order ID 59782

Friday, June 11, 2010 11:43:14 AM



Page 1

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 6/10/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 6/25/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

10/6/11

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D3274

D

IIN-D206-642

Rev M

0.00

100



DC

DOCUMENT CONTROL

0.00

Memo

Document Control

Photocopy bluefile & type labels per PPP D206-642-541

CHG003

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

110

0.00



Skidtubes

0.00

Skidtubes

Memo

VERIFY AND INSPECT THE MATERIAL PRIOR TO USE

1- Bend FWD end of tube using bend prog D3274 FWD dwg D3274, cut fwd end of tube with saw table setup D3274.

DP 10-6-15

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

M 10/6/15

3- weld fwd cap as per dwg D3274 and QSI004

AR Aluminum Rod Batch: M112507/114242

BE 10/6/15

4- grind fwd cap weld on top surface only

BE 10/6/15

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D. Drill 3/16" pilot holes as per Dwg D3274

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

M 10/6/16

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00							
130 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00							
140 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							

1 Max/16

S. 10/06/10

S. 10/06/10

(S)

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Run Start

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Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Open Ø0.313" and 0.375" crossbolt spacer holes using DT8743 as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/R ☐ SikaFlex-291 ☐ 11/35/09 ☐SikaFlex expire date: ☐ 12/30/13 ☐Start: ☐ 10/6/16 ☐ Time: ☐ 3:50 ☐Finish: ☐ 10/6/17 ☐ Time: ☐ 9:10am ☐

(Adhere for 12 hours)

H 10/6/16

160

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

S 10/6/17

C-00

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Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

170

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2
OPEN HOLES TO .297" . Debur3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD
END OF TUBE
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

h23.060"

L° = 8.4.7°

8/10/06/25 @

DP 10-6-23

3 BE10/06/25

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Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod
A/R □ □ Aluminum Rod □ M112507

BE 10/06/28

3-Grind cross bolt welds flush as per Dwg D3274.

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.

M 10/6/29

200

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8.266/3040

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Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Sulob6130

FD

Quality Control

220

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch

1 BL 10-7-1

230

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

START TIME: 10:00
OVEN TEMPERATURE: 320°
FINISH TIME: 10:30

1 BL 10-7-1

Powder Coating

W/O:		WORK ORDER CHANGES					
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Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

240

QC3- Inspect Part Finish

0.00 => M 10/07/05



QC

Memo

0.00

Quality Control

250

HandFinishing

0.00



HandFinish

Memo

0.00

Hand Finishing

1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets.

A/R ☐ N/A ☐ LPS-3 ☐ M109956

2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a

A/R ☐ ☐ Sikaflex-291 ☐ M113519

Sikaflex expire date: ☐ 10/14

260

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Inspect Nut Plate & Inserts

W/O:		WORK ORDER CHANGES						
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Customer:



Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270  HandFinish Hand Finishing	HAND FINISHING RESOURCE #1 Memo ✓ 1-Install wearpads & gaskets as per Dwg D3274. 2-Install ring as per Dwg D3274 ✓ A/R <input type="checkbox"/> Sikaflex-291 <input type="checkbox"/> M113519 <input type="checkbox"/> Sikaflex expire date: <input type="checkbox"/> 10/4 ✓ 3-Inspect for foreign objects as per QSI 024 4-Spray inside of tube on both sides of web with LPS-3 ✓ A/R LPS-3 Batch: N/A 5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive. A/R <input type="checkbox"/> Sikaflex-291 <input type="checkbox"/> M113519 <input type="checkbox"/> ✓ Sikaflex expire date: <input type="checkbox"/> 10/4	0.00 0.00		⇒ Mf 10/07/06		1	0		
280  QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00		S 10/07/06					

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Run Start

Stop

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Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

290

Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

PPP
59779

0.00

Packaging

300

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

ME

10-7-8

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Picklist Print

Friday, June 11, 2010 11:43:18 AM

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Work Order ID: 59782

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Comments: IPP Rev:B 05.09.23 Revised per D206-642 Rev. J KJ/JLM
IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC

Start Date: 6/10/2010

Required Date: 6/25/2010

Start Qty: 1.00

Required Qty: 1.00

D2600-1-190

Manufactured No

110 Each

36.0000

1 1



Extrusion Round 3" 206

Location

Loc Qty

Loc Code

LG

47575

36

36

110

Each

153.0000

1 1

D3285-1

Manufactured No



Cap

Location

Loc Qty

Loc Code

LG

47635

153

4

74

75

150

Each

6.0000

1 1

D3282-041

Manufactured No



Float Web (206L/407)

Location

Loc Qty

Loc Code

LG

57539

6

6

190

Each

147.0000

12 1

D2649

Manufactured No



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

55000

147

6

58545

141

12

BE 10/06/28

10-6-15

BE 10/6/15

10/6/15

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 IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
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Start Qty: 1.00

Required Qty: 1.00

D3275-1 Manufactured No 190 Each 71.0000 12 12



Crossbolt Spacer

Location	Loc Qty	Loc Code
LG	71	
53453	8	
57513	57	
58179	6	

12 BE 10/06/23

CR3212-4-03 Purchased No 250 Each 4,523.000 2 2



Cherry Rivet

Location	Loc Qty	Loc Code
ST311	4523	
111359	5	
112314	30	
114436	1476	
114450	1012	
114859	2000	

x2 ul 10/07/05

D3415-041 Manufactured No 250 Each 67.0000 1 1



Nut Plate

Location	Loc Qty	Loc Code
ST056	67	
33842	67	

x1 ul 10/07/05

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Shop Packet Print

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 IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC

Start Date: 6/10/2010

Required Date: 6/25/2010

Start Qty: 1.00

Required Qty: 1.00

CCR264SS3-3

Purchased

No

250

Each

554.0000

2

2



Cherry Rivet

Location

Loc Qty

Loc Code

ST311

554

112314

4

113539

60

113973

490

ALS4-1032-130

Purchased

No

250

Each

5,752.000

78

78



Insert

Location

Loc Qty

Loc Code

PKG11

5000

114723

5000

ST282

305

110511

38

114407

267

ST381

447

114654

447

D3536-15

Manufactured

No

270

Each

19.0000

1

1



Gasket

Location

Loc Qty

Loc Code

FP

7

56055

7

FP11

12

59238

12

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Start Qty: 1.00

Required Qty: 1.00

D3536-23 Manufactured No 270 Each 12.0000 1 1
 Gasket

Location Loc Qty Loc Code

FP011

12

58819

12

D3536-35 Manufactured No 270 Each 19.0000 1 1
 Gasket

Location Loc Qty Loc Code

FP012

19

58637

7

58683

12

D3536-39 Manufactured No 270 Each 27.0000 1 1
 Gasket

Location Loc Qty Loc Code

FP

1

51637

1

FP12

26

58215

12

58571

14

Friday, June 11, 2010 11:43:18 AM

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Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, June 11, 2010 11:43:18 AM

Page 5 / 8

Work Order ID: 59782



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 6/10/2010

Required Date: 6/25/2010

Comments: IPP Rev:B 05.09.23 Revised per D206-642 Rev. J KJ/JLM
 IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
 IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
 IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

D3535-15 Manufactured No 270 Each 16.0000 1 1



Wearshoe

Location

Loc Qty

Loc Code

FP

6

66053

6

FP18

10

59236

10

X1 10/07/05

D3535-35 Manufactured No 270 Each 15.0000 1 1



Wearshoe

Location

Loc Qty

Loc Code

FP018

15

57528

2

59237

13

X1 10/07/05

D3535-39 Manufactured No 270 Each 13.0000 1 1



Wearshoe

Location

Loc Qty

Loc Code

FP

1

51619

1

FP18

12

58214

12

X1 10/07/05

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Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
	1							

NOTE: Date & initial all entries

Picklist Print

Friday, June 11, 2010 11:43:18 AM

Page 6 / 8

Work Order ID: 59782

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 6/10/2010

Required Date: 6/25/2010

Comments: IPP Rev:B 05.09.23 Revised per D206-642 Rev. J KJ/JLM
 IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
 IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
 IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

D3535-23 Manufactured No 270 Each 11.0000 1 1



Wearshoe

Location	Loc Qty	Loc Code
FP21	11	

D3537-3 Manufactured No 270 Each 10.0000 1 1



Wearpad

Location	Loc Qty	Loc Code
FP17	10	
	10	

D3537-1 Manufactured No 270 Each 49.0000 9 9



Wearpad

Location	Loc Qty	Loc Code
FP	1	B59116
55465	1	
FP17	12	
57713	3	
58178	9	
FP18	36	
	36	

AN960C10L Purchased No 270 Each 0.0000 80 80



washer

1115600

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Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 7 / 8

Work Order ID: 59782

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Comments: IPP Rev:B 05.09.23 Revised per D206-642 Rev. J KJ/JLM
 IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
 IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
 IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC

Start Date: 6/10/2010

Required Date: 6/25/2010

Start Qty: 1.00

Required Qty: 1.00

AN960C416 NAS1149C0463 Purchased No 270 Each 118.0000 1 1



washer



Location

Loc Qty

Loc Code

ST346

118

100993

118

D3672-1 Manufactured No

270 Each

1,315.000 2



Phenolic Washer



X1 10/07/05

Location

Loc Qty

Loc Code

ST077

1315

51674
52505

315

1000

AN3C4A Purchased No

270 Each

1,525.000 80



BOLT



X2 10/07/05

80

Location

Loc Qty

Loc Code

ST350

1525

114103

501

114108

14

114416

12

114523

2

114859

996

X80 10/07/05

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Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, June 11, 2010 11:43:18 AM

Page 8 / 8

Work Order ID: 59782



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 6/10/2010

Required Date: 6/25/2010

Comments: IPP Rev:B 05.09.23 Revised per D206-642 Rev. J KJ/JLM
IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

AN4C5A

BOLT

Purchased No 270 Each 519.0000 1 1



Location	Loc Qty	Loc Code
ST346	519	
110552	19	
112243	500	

VI 10/6/05

D2646

Aft Cap

Manufactured No 270 Each 109.0000 1 1



Location	Loc Qty	Loc Code
FP-4	99	
57332	99	
FP6	10	
52663	10	

VI 10/07/05

D3413-1

Ring

Manufactured No 270 Each 37.0000 1 1



Location	Loc Qty	Loc Code
ST473	37	
51586	1	
53446	23	
58524	13	

VI 10/07/05

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Page 8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY SCALE NTS	
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

RELEASED
07.02.12
DEO ATTACHED

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

GENERAL NOTES:

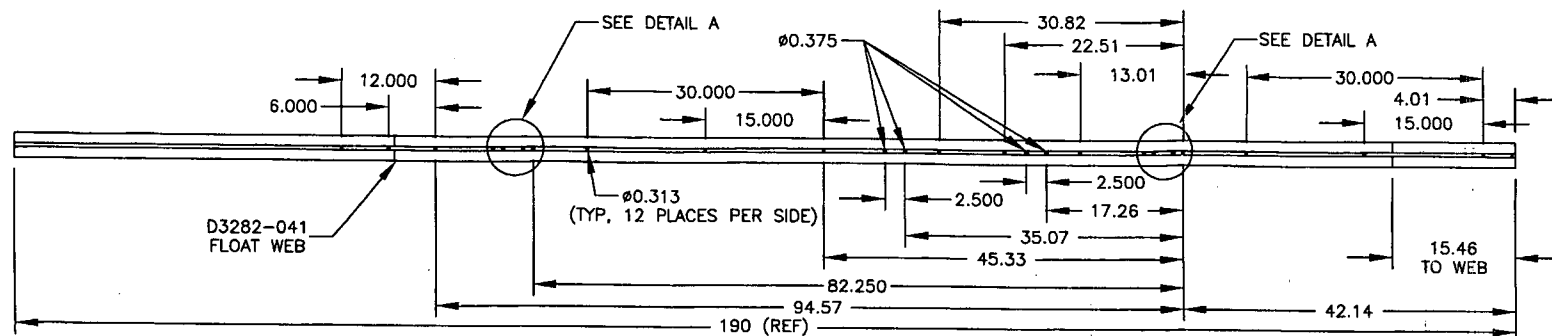
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- ALL HOLES DRILLED ON CENTERLINES.
- BOND D3282-041 FLOAT WEB INTO D3274-1/3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
- WELDING TO BE DONE PER DART QSI 004.
- FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
- DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

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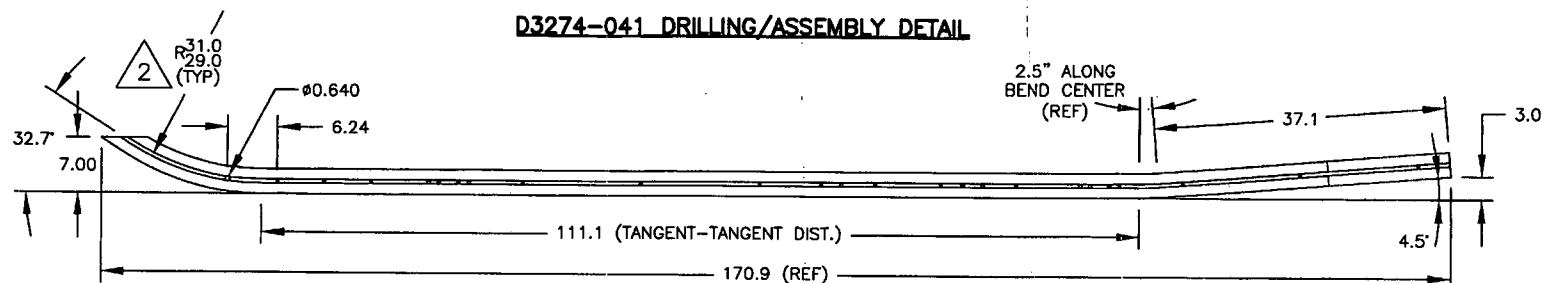
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RETURN TO
ENGINEERING
UNCONTROLLED
SUBJECT TO
WITHDRAWAL
WORK ORDER
07.02.12
8800-6-11

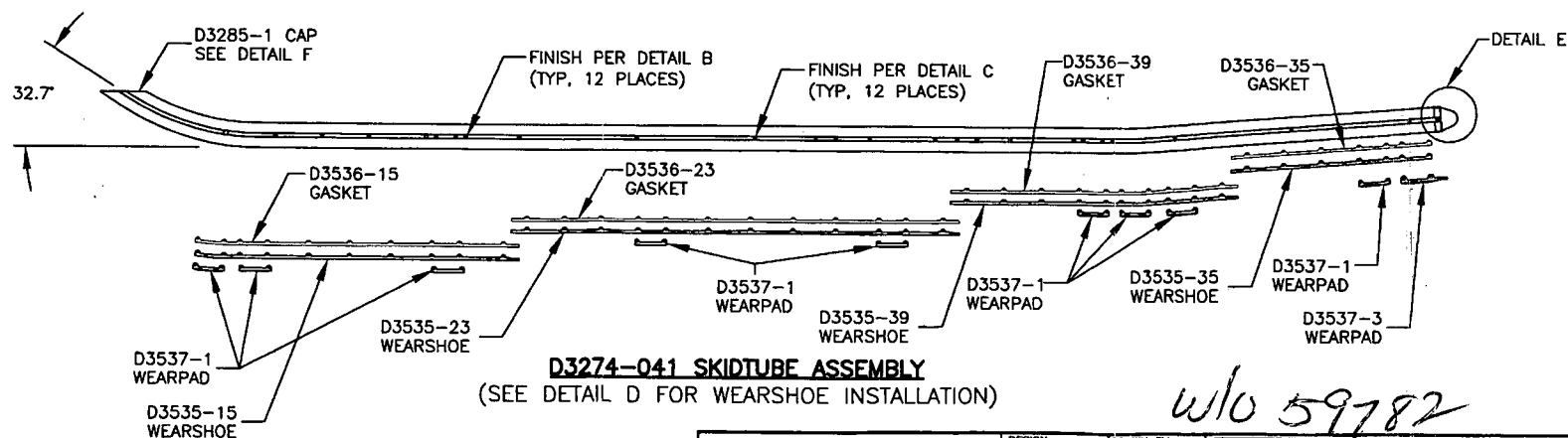
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D3274-041 DRILLING/ASSEMBLY DETAIL



D3274-041 BEND/DRILLING DETAIL



D3274-041 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

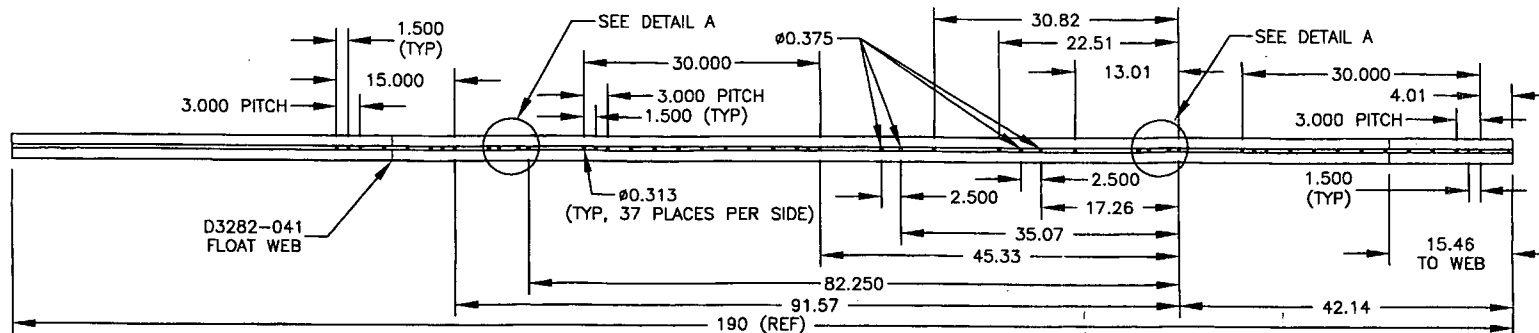
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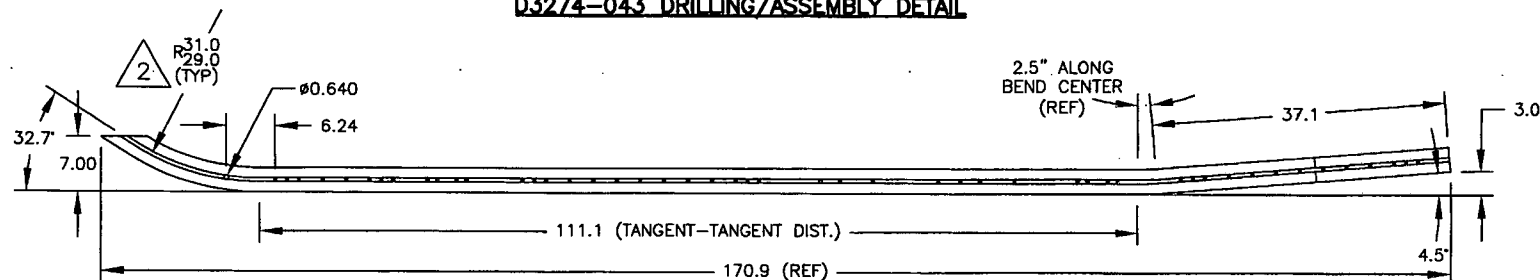
DESIGN CP	DRAWN BY PH	DART DART AEROSPACE USA, INC. PORT HADLOCK, MA	
CHECKED #	APPROVED #	DRAWING NO. D3274	REV. D SHEET 2 OF 4
DATE 06.12.19	TITLE SKIDTUBE ASSEMBLY	SCALE 1:15	

W10 59782

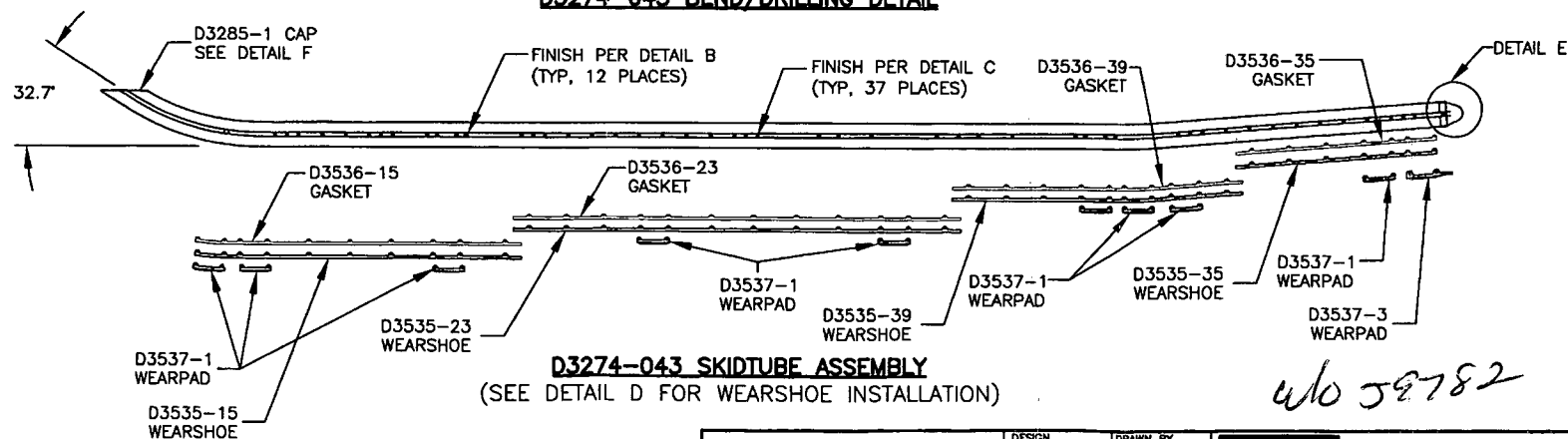
DEO ATTACHED



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



D3274-043 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

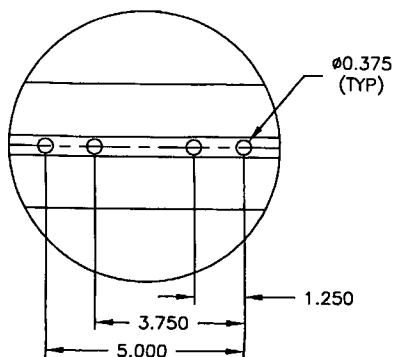
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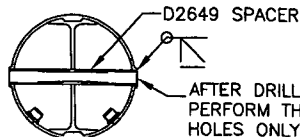
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CHECKED H	APPROVED H	DRAWING NO. D3274	REV. D SHEET 3 OF 4
DATE 06.12.19	TITLE SKIDTUBE ASSEMBLY		SCALE 1:15

410 59782

DETAIL A: DRILL DETAIL

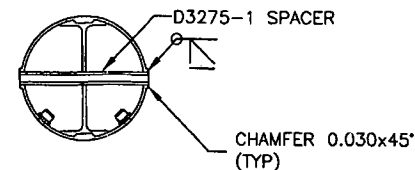


DETAIL B FOR 0.375 HOLES ONLY

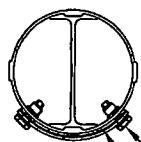


- AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR 0.375
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
 2. INSERT D2649 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE TO 0.313x0.75 DEEP

DETAIL C FOR 0.313 HOLES ONLY



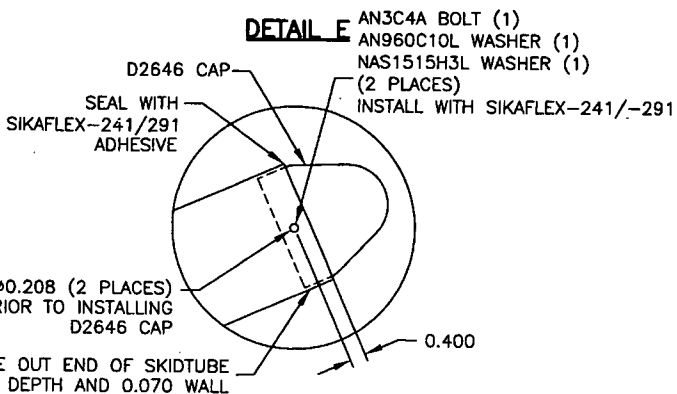
DETAIL D



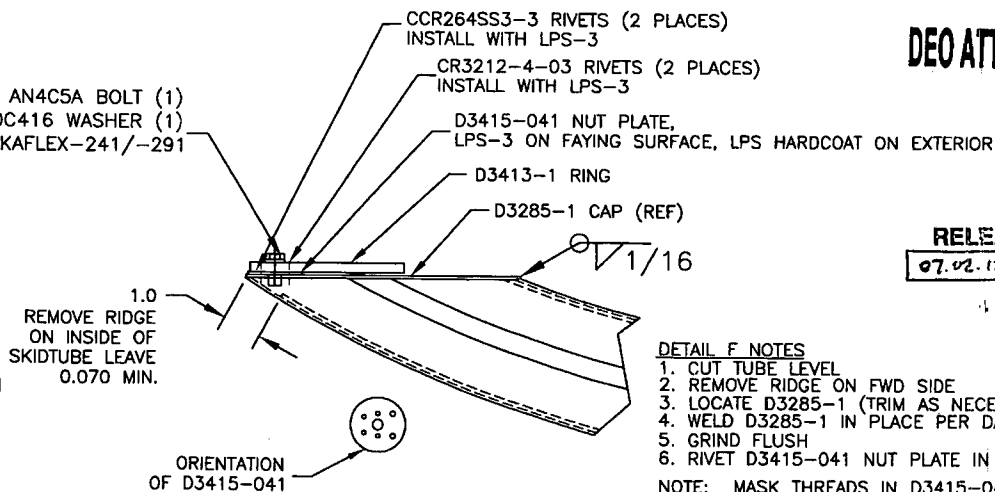
- ALS7-1032-130 INSERT (1)
AN3C4A BOLT (1)
AN960C10L WASHER (1)
(78 PLACES)

GASKET/WEARSHOE/WEARPAD (REF)

DETAIL E



DETAIL F: END FINISHING DETAIL



DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

DEO ATTACHED

RELEASED

07.02.12

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DESIGN CP	DRAWN BY PH	DART DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED H	APPROVED H	DRAWING NO. D3274	REV. D SHEET 4 OF 4
DATE 06.12.19	TITLE SKIDTUBE ASSEMBLY	SCALE 1:3	

WLO 59782

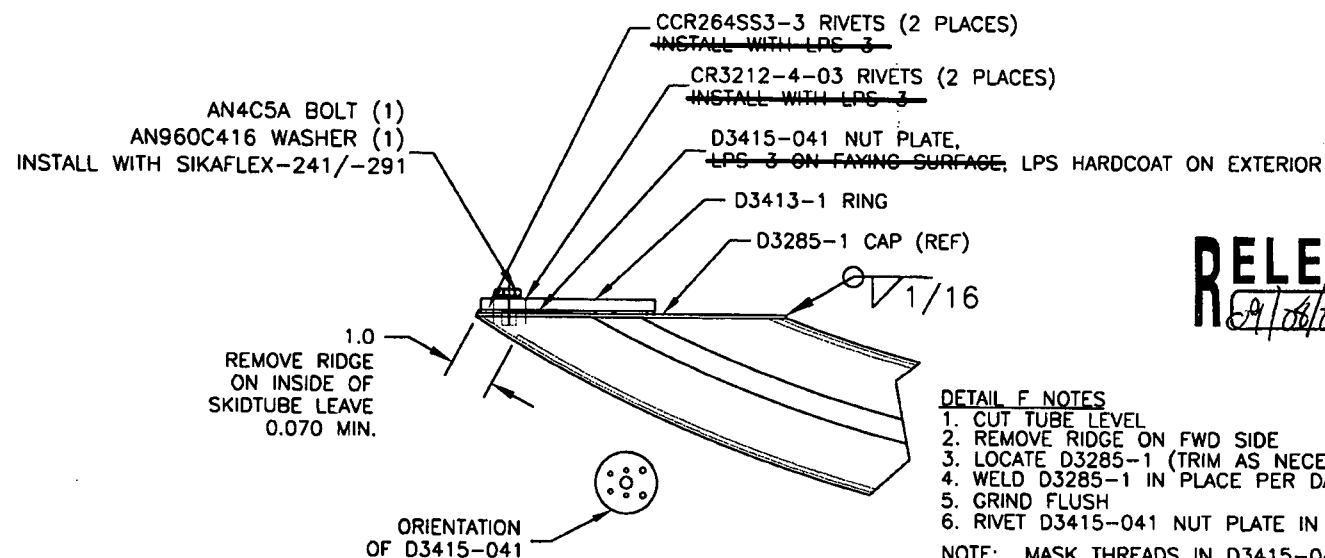
DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>CP</i>	CHECKED <i>A</i>	MFG. APPR. <i>M</i>	APPROVED <i>MAP</i>	DE APPR. <i>#</i>		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23	DATE 09.06.23		

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: ~~"SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS 3' AFTER FINISH AND INSTALLATION OF INSERTS.~~
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

DETAIL F: END FINISHING DETAIL



RELEASED
09/06/23

DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

W6 59282

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NO 230

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 57358
Part number: DAC-642-541
Description: flatt tube
Welding Process: Tig[☒] Mig[]
Base material: Aluminium
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier Lat. Phil Date of Test Coupon 10-05-05

Welder Barclay Elliott Date of Test Coupon 10-05-05

The above named individual is qualified in accordance with AWS D17.1.2001 to weld